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| 10/039,805 | 10/19/2001 | Henry Colombo | CSA-101-B | 9375 |

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EXAMINER

DUNWOODY, AARON M

ART UNIT PAPER NUMBER

3679

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

M

Office Action Summary

Application No.

10/039,805

Applicant(s)

COLOMBO ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-14,25-27,29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-14,25-27,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's Notice of Appeal of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

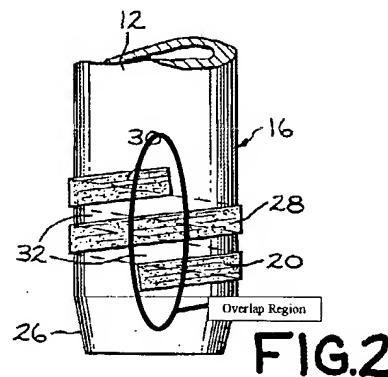
Claims 12-14, 25-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 3343252, Reesor in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and US patent 3937641, Kusher et al.

In regards to claim 12, Reesor discloses a sealer joint comprising a pair of thin wall metallic pipes (21, 22) having smooth interior and exterior surfaces and end portions, each end portion having a squared cut end and a rounded cross-sectional configuration, a pair of the pipe ends positioned in a parallel and an end to end relationship to each other; and a clamp (23) over an adhesive (31).

Reesor does not disclose a double-sided adhesive, closed-cell acrylic foam tape applied only around the exterior surfaces of the pair of the pipe ends, wherein the double-sided tape has a first end and a second end and the second end forms and overlap of the first end around the pair of the pipe ends. Reesor

does disclose a high strength, two part modified epoxy resin (liquid adhesive, col. 1, lines 9-12 and 61-71). 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data teaches a double-side adhesive, closed-cell acrylic foam tape ideal for use in many exterior industrial applications which can replace liquid adhesives (such as the liquid adhesive of Ressor), and is ideal for bonding a variety of substances, including most metals (pg. 1, lines 4-12).

Further, Kushner et al is evidence that it is commonly known in the art to apply a double-sided tape (28) (col. 2, lines 19-39) only around the exterior surface a pipe end (16), wherein the double-sided tape has a first end and a second end and the second end forms and overlap (axially, see Figure 2 below)



of the first end around the pipe end, so as to have "a greater resistance to sheer force than the usual adhesive customarily used in joints that is applied in a liquid state" (col. 2, lines 29-33).

It would have obvious to one having ordinary skill in the art at the time the invention was made to provide a double-sided adhesive, closed-cell acrylic foam tape applied only around the exterior surfaces of the pair of the pipe ends, wherein the double-sided tape has a first end and a second end and the second

end forms and overlap of the first end around the pair of the pipe ends, since Ressor discloses a high strength, two part modified epoxy resin (liquid adhesive); 3M VMBTM Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data teaches a double-side adhesive, closed-cell acrylic foam tape ideal for use in many exterior industrial applications which can replace liquid adhesives (such as the liquid adhesive of Ressor), and is ideal for bonding a variety of substances, including most metals; and Kushner et al is evidence that it is commonly known in the art to apply a double-sided tape only around the exterior surface a pipe end, wherein the double-sided tape has a first end and a second end and the second end forms and overlap of the first end around the pipe end, so as to have a greater resistance to sheer force than the usual adhesive customarily used in joints that is applied in a liquid state.

In regards to claim 13, Ressor in view of 3M VMBTM Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kushner et al disclose the coupling having means for clamping (the crimp) the coupling and wherein the means for clamping being positioned of the double-sided adhesive, closed-cell acrylic foam tape.

In regards to claim 14, Ressor in view of 3M VMBTM Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kushner et al disclose the pair of pipe ends being butted as close together as possible.

In regards to claim 25, Reesor in view 3M VMBTM Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kusher et al disclose a sealed joint comprising:

a pair of thin wall metallic pipes having smooth interior and exterior surfaces, each pipe having an end positioned in a parallel and an end-to-end relationship to each other;

a double-sided adhesive, closed-cell acrylic foam tape having a normal tensile strength of at least 80 - 1101bs./in² to aluminum at room temperature, wherein the double-sided adhesive, closed-cell acrylic foam tape is wrapped around only the exterior surfaces of the pipe ends for providing a leakproof joint and a smooth interior surface at the joint;

and a coupling clamped over the double-sided adhesive, closed-cell acrylic foam tape.

In regards to claim 26, Reesor in view of 3M VMBTM Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kusher et al disclose the claimed invention except for the double-sided adhesive, closed-cell acrylic foam tape being precut so that a second end of the precut tape overlaps a first end of the precut tape around the pipe ends forming an overlap approximately 3/16" - 1/4" long and the coupling having a clamping means positioned over the overlap. It would have been an obvious matter of design choice to fabricate the double-sided adhesive, closed-cell acrylic foam tape precut so that a second end of the precut tape overlaps a first end of the precut tape around the pipe ends forming an overlap approximately 3/16" - 1/4" long and the coupling having a clamping means positioned over the overlap, since such a modification would have involved a mere change in the size of a

component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Note, a comparison of the recited process with the prior art processes does NOT serve to resolve the issue concerning patentability of the product. *In re Fessman*, 489 F2d 742, 180 U.S.P.Q. 324 (CCPA 1974). Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable. *In re Klug*, 333 F2d 905, 142 U.S.P.Q. 161 (CCPA 1964). In an ex parte case, product-by-process claims are not construed as being limited to the product formed by the specific process recited. *In re Hirao et al.*, 535 F2d 67, 190 U.S.P.Q. 15, see footnote 3 (CCPA 1976). Therefore, the double-sided adhesive, closed-cell acrylic foam tape being precut so that a second end of the precut tape overlaps a first end of the precut tape around the pipe ends forming an overlap approximately 3/16" - 1/4" long is given little patentable weight.

In regards to claim 27, Reesor in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kusher et al disclose the double-sided adhesive, closed-cell acrylic foam tape further providing a static sheer of at least 1000 grams at 72° and 500 grams at 150°F, has a peel adhesion rating for stainless steel at room temperature of at least 181bs./in.

In regards to claim 29, Reesor in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kusher et

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al disclose the double-sided adhesive, closed cell acrylic foam tape able to be applied to the pair of pipe ends at a temperature as low as 32°F.

In regards to claim 30, Reesor in view of 3M VMB™ Double Coated Acrylic Foam Tapes and Adhesive Transfer Tapes Technical Data and Kusher et al disclose a sealed joint comprising:

a pair of metallic pipes having smooth interior and exterior surfaces, the pair of metallic pipes each having a chamfered end abutted in an end-to-end relationship to each other;

a double-sided adhesive, closed-cell acrylic foam tape applied only around the exterior surfaces of the abutted chamfered ends; and

a coupling clamped over the acrylic foam tape, wherein the double-sided adhesive, closed-cell acrylic foam tape having the following properties: a peel adhesion rating of at least 181bs/in² at room temperature for stainless steel, a normal tensile strength to aluminum at room temperature of at least 501bs./in², a static sheer of at least 1000 grams at 72°F and of at least 500 grams at 150°F, a dynamic sheer of 40 lbs./in², a static sheer of 250 grams for 10,000 minutes and a temperature tolerance of at least 160°F.

Response to Arguments

Applicant's arguments with respect to claims 12-14, 25-27, 29 and 30 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues:

The Kushner et al. reference also does not show an end-to-end relationship of the pipes.

The Examiner disagrees. Kushner et al clearly illustrates an end-to-end relationship of the pipes in Figures 1-3. Therefore, Kushner et al meets the claim limitation.

The applicant argues:

The Reesor reference does not apply adhesive to the pipe ends. The Appellants clearly show that the double-sided adhesive tape is applied to the exterior portion of the pipe ends (the extremities of the pipe) and not to an end portion of the pipe that is spaced from the pipe end.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the double-sided adhesive tape is applied to the exterior portion of the extremities of the pipe) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, it is commonly known in the art that a pipe is comprised of three parts, a middle and two ends. Since, the Reesor reference does apply adhesive to the pipe ends, the claimed limitation is met.

The applicant argue:

In addition, claim 12 requires that the adhesive foam tape has a first end and a second end, and the second end forms an overlap of the first end around the pair of pipe ends. By Webster's definition,

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"overlap" means to "be or extend over and cover part of" (see attached Appendix A). The Kushner et al. reference clearly does not show or disclose this feature.

The examiner disagrees. In Figure 2 above, Kushner et al clearly illustrates the adhesive foam tape having a first end and a second end, and the second end forming an axial overlap of the first end around the pair of pipe ends. Therefore, Kushner et al meets the claim limitation.

The applicant argue:

Therefore, Reesor teaches away from claim 13 which requires clamping over the adhesive tape and pipe ends.

Simply that there are differences between two references is insufficient to establish that such references "teach away" from any combination thereof. In re Beattie, 974 F.2d 1309, 1312-13, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

Further, Claims in a pending application should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974). The broadest interpretation of a clamp is a device designed to bind or constrict or to press two or more parts together so as to hold them firmly (Merriam-Webster's Collegiate Dictionary, 10th ed.). Therefore, Reesor does meet the claim limitation.

The applicant argue:

With respect to claim 25, the combination of Reesor and Kushner et al. does not anticipate, teach, or suggest a pair of thin wall metallic pipes having smooth interior and exterior surfaces.

The examiner disagrees. Both Reesor and Kushner et al. illustrate a pair of thin wall metallic pipes having smooth interior and exterior surfaces which are free of projections such as knurling. Therefore, Reesor and Kushner et al meet the claim limitation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

.amd



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Technology Center 3670**